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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	09/932,860
Filing Date	August 17, 2001
First Named Inventor	Carpenter et al.
Group Art Unit	1763
Examiner Name	R. Zervigon
Attorney Docket Number	2269-4880US (01-0170.00/US)

ENCLOSURES *(check all that apply)*

- ☒ Postcard receipt acknowledgment (attached to the front of this transmittal)
- ☒ Duplicate copy of this transmittal sheet in the event that additional filing fees are required under 37 C.F.R. § 1.16
- ☐ Preliminary Amendment
- ☐ Response to Restriction Requirement/Election of Species Requirement dated
- ☒ Brief on Appeal dated September 29, 2004 with Appendices A and B (29 pages) and Check No. 6705 in the amount of $330.00.
- ☐ Amendment under 37 C.F.R. § 1.116 in response to final office action dated
- ☐ Additional claims fee - Check No. in the amount of $
- ☐ Letter to Chief Draftsman and copy of FIGS. with changes made in red
- ☐ Transmittal of Formal Drawings
- ☐ Formal Drawings (sheets)
- ☐ Information Disclosure Statement, PTO/SB/08A (08-00); ☐ copy of cited references
- ☐ Supplemental Information Disclosure Statement; PTO/SB/08A (08-00); copy of cited references and Check No. in the amount of $180.00
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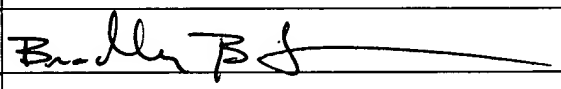
Remarks

The Commissioner is authorized to charge any additional fees required but not submitted with any document or request requiring fee payment under 37 C.F.R. §§ 1.16 and 1.17 to Deposit Account 20-1469 during pendency of this application.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm *or* Individual name	Bradley B. Jensen Registration No. 46,801
Signature	
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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Carpenter et al.

Serial No.: 09/932,860

Filed: August 17, 2001

For: HEATED GAS LINE BODY FEEDTHROUGH FOR VAPOR AND GAS DELIVERY SYSTEMS AND METHODS OF EMPLOYING SAME

Confirmation No.: 6588

Examiner: R. Zervigon

Group Art Unit: 1763

Attorney Docket No.: 2269-4880US

NOTICE OF EXPRESS MAILING

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BRIEF ON APPEAL

Mail Stop Appeal Brief – Patent
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sirs:

This brief is submitted in the format required under 37 C.F.R. § 41.37(c). A check in the amount of $330.00 for the fee under 37 C.F.R § 41.20(b)(1) for filing a brief in support of an appeal is enclosed.

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1) REAL PARTY IN INTEREST

The real party in interest in the present pending appeal is Micron Technology, Inc., Assignee of the pending application as recorded with the United States Patent and Trademark Office on August 17, 2001, at Reel 012105, Frame 0949.

2) RELATED APPEALS AND INTERFERENCES

Neither the Appellants, the Appellants' representative nor the Assignee is aware of any pending appeal or interference which would directly affect, be directly affected by or have any bearing on the Board's decision in the present pending appeal.

3) STATUS OF THE CLAIMS

Claims 1 through 5 and 7 through 13 are pending in the application.

Claims 6 and 14 through 37 have been canceled.

Claims 1 through 5 and 7 through 13 stand rejected.

Claims 1 through 5 and 7 through 13 are the subject of the present pending appeal.

4) STATUS OF AMENDMENTS

No amendments have been proposed in the present application subsequent the final rejection mailed April 30, 2004.

5) SUMMARY OF THE CLAIMED SUBJECT MATTER

Referring to FIGS. 2 through 4B of the as-filed application, the presently claimed invention is directed to a deposition chamber 200 such as, for example, a chemical vapor deposition (CVD) chamber or an atomic layer deposition (ALD) chamber. (As-filed Application, page 7, ¶ [0025]). The deposition chamber 200 includes a chamber body 202, a chamber lid 204 and a chamber cavity 206 defined within the chamber body 202. A vapor delivery head 218 is positioned within the cavity 206 for discharging the vapor into the chamber cavity 206. A gas delivery path 207 travels through the chamber body 202 via a feedthrough device 208, through the chamber lid 204 and to the vapor delivery head 218. (As-filed Application, pages 7 and 8, ¶ [0026]).

A heating device 238, which includes at least one resistor element 244 having at least a portion thereof disposed within a thermally conductive sheathing 246 is associated with the feedthrough device 208. The heating device 238 includes a nonheated section 242 and a heated section 240, wherein at least a portion of the heated section 240 is configured to conduct heat to the longitudinal body portion 258 of the feedthrough device 208. (As-filed Application, pages 9 and 10, ¶¶ [0031] and [0032]).

A layer of thermal insulation 213 is disposed between at least a portion of the thermally conductive sheathing 246 of the heating device 238 and the chamber body 202 and substantially circumscribes the longitudinal body portion 258 and the at least a portion of the thermally conductive sheathing 246 of the heating device 238. The layer of thermal insulation 213 includes at least a portion which is contiguous with at least one of a surface of the chamber body 202 and a surface of the longitudinal body portion 258. (As-filed application, page 12, ¶ [0042]).

A temperature sensing device 250 is disposed between the layer of insulation 213 and the longitudinal body portion 258 of the feedthrough device 208 and configured to generate a signal representative of a temperature sensed thereby. (As-filed Application, pages 9 and 10, ¶ [0032]; page 12, ¶ [0040]).

The temperature sensing device 250 may include a thermocouple, and the temperature sensing device 250 (whether in the form of a thermocouple or otherwise) may be positioned within the thermally conductive sheathing 246 of the heating device 238. (As-filed Application, pages 9 and 10, ¶ [0032]).

6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1 through 5 and 7 through 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sajoto et al. (U.S. Patent No. 6,056,823) in view of Whitney (U.S. Patent No. 4,638,150) as demonstrated by DeZubay et al. (U.S. Patent No. 4,480,930).

7) ARGUMENTS

STANDARD OF PATENTABILITY UNDER 35 U.S.C. § 103(a)

Rejection of claims under 35 U.S.C. § 103(a) requires that the Patent and Trademark Office (hereinafter "the Office") must first establish a prima facie case of obviousness. M.P.E.P. § 2142. The standard for establishing a prima facie case of obviousness is set forth in M.P.E.P. 706.02(j) where it states:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In view of these standards, and the arguments set forth below, Appellants respectfully submit that the Office has not established a prima facie case of obviousness under 35 U.S.C. § 103(a).

A.1 PATENTABILITY OF CLAIMS 1 THROUGH 5, 7 AND 11 THROUGH 13

In an Office Action mailed April 30, 2004, and made Final (hereinafter "the Final Action"), the Examiner rejected claims 1 through 5, 7 and 11 through 13 under 35 U.S.C. § 103(a) as being unpatentable over Sajoto et al. (U.S. Patent No. 6,056,823 – hereinafter "Sajoto") in view of Whitney (U.S. Patent No. 4,638,150 – hereinafter "Whitney") as demonstrated by DeZubay et al. (U.S. Patent No. 4,480,930 – hereinafter "DeZubay").

Appellants submit that the 35 U.S.C. §103(a) rejections of claims 1 through 5, 7, 11 and through 13 are improper because the references relied upon by the Examiner fail to teach or suggest all of the claim limitations of the presently claimed invention.

Independent claim 1 of the presently claimed invention is directed to a deposition chamber. The deposition chamber comprises: a chamber body having a cavity formed therein; a chamber lid configured to enclose the cavity; a vapor delivery head positioned within the cavity; a feedthrough device positioned in the chamber body, the feedthrough device having a longitudinal body portion and being configured to receive vapor from a vapor source and transfer the vapor therethrough along a pathway toward the vapor delivery head; a heating device including at least one resistor element having at least a portion thereof disposed within a thermally conductive sheathing, the heating device including a nonheated section and a heated section, wherein at least a portion of the heated section is configured to conduct heat to the longitudinal body portion of the feedthrough device; a layer of thermal insulation disposed between at least a portion of the thermally conductive sheathing of the heating device and the chamber body and substantially circumscribing the longitudinal body portion and the at least a portion of the thermally conductive sheathing, the layer of thermal insulation including at least a portion which is contiguous with at least one of a surface of the chamber body and a surface of the longitudinal body portion; and a temperature sensing device disposed between the layer of insulation and the longitudinal body portion of the feedthrough device and configured to generate a signal representative of a temperature sensed thereby.

The Examiner cites Sajoto as teaching a chamber body having a cavity formed therein; a chamber lid configured to enclose the cavity; a vapor head positioned within the cavity; a

feedthrough device having a longitudinal body portion positioned in the chamber body having a lumen defined therein and configured to receive vapor from a vapor source and transfer the vapor therethrough along a pathway toward the vapor delivery head; and a resistance heating device associated with the feedthrough device wherein at least a portion of the resistance heater is positioned within a continual helical groove of the feedthrough device. (See, Final Action, pages 4 and 5).

The Examiner then cites Whitney as teaching a flexible wire heater device including: electrical resistance leads having at least a portion thereof disposed within a stainless steel conductive sheathing; and "a thermocouple ('PTC component 14', 'temperature-responsive component 14'; column 4, lines 54-68) positioned within the conductive sheathing to form a 'self-limiting' heater." (Final Action, page 6; the Examiner cites, in a footnote, U.S. Patent 4,480,930 to DeZubay et al. as demonstrating that PTCs are thermocouples). The Examiner further cites Whitney as teaching a layer of thermal insulation (42, 44) disposed between at least a portion of the heated section (40) of the heating device; and "a temperature sensing device ('PTC component 14'. 'temperature-responsive component 14'; column 4, lines 54-68) positioned inside the layer of insulation and configured to generate a signal representative of a temperature sensed thereby." (Final Action, page 6).

The Examiner states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace Sajoto's heater with Whitney's heater by either adhering or welding Whitney's heater to Sajoto's feedthrough device to provide a heater with a temperature responsive component to limit elevated temperatures as taught by Whitney. (Final Action, pages 6-7). Appellants respectfully disagree.

Appellants note that one of the bases of the Examiner's rejection under Sajoto and Whitney is the assertion that Whitney's use of the acronym "PTC" refers to a "pulsed thermocouple" as taught by DeZubay. Appellants submit that this is clearly erroneous.

Appellants respectfully submit that, as used by Whitney, "PTC" is an acronym for the more common meaning of "positive temperature coefficient." In particular, Appellants point to column 2, lines 7-41, of Whitney in which both "zero temperature coefficient," (Whitney, col. 2, lines 9-10), and "positive temperature coefficient," (Whitney, col. 2, lines 25-28), materials are defined. Whitney describes the characteristics and the behaviors of zero temperature coefficient and positive temperature coefficient materials in these paragraphs, concluding, "[a] material is defined as a ZTC material if it is not a PTC material in the temperature range of operation." (Col. 2, lines 39-41). It is clear from the context of Whitney's teachings that the acronym "ZTC" is used as shorthand for "zero temperature coefficient" and that the acronym "PTC" is used as shorthand for "positive temperature coefficient." (See, Whitney, col. 2, lines 7-41).

Moreover, Whitney discloses "a resistive heating component 13 that has a *zero temperature coefficient* of resistance" (Whitney, col. 4, lines 50-51, emphasis added) and then subsequently refers to the same element (i.e., 13) as a "ZTC component 13." (Whitney, col. 4, line 67; col. 5, line 5). Similarly, and more importantly, Whitney discloses "a temperature-responsive component 14 that has a *positive temperature coefficient* of resistance" (Whitney, col. 4, liens 54-56, emphasis added) and then subsequently refers to the same element (i.e., 14) as a "PTC component 14." (Whitney, col. 4, line 68; col. 5, line 5). Such correlation of terms within the teachings of Whitney clearly indicates that Whitney uses the acronym "PTC" to represent "positive temperature coefficient."

Furthermore, substituting the term "pulsed thermocouple" for the use of "PTC" in Whitney's disclosure, as proposed by the Examiner, renders Whitney's disclosure incomplete and confusing. For example, in referring to the electrical circuit diagram of FIG. 2, Whitney states that "[t]he ZTC component 13 and PTC component 14 are connected in series and the combined resistance of this module 24 is 10 ohms to 100K ohms." (Whitney, col. 5 lines 5-7). With respect to another embodiment, Whitney states that "FIG. 3a shows a series connection of PTC components 13 [sic] and FIG. 3b shows the resultant heater.... It has been found that the series connection of PTC components 13 [sic] optimizes the power requirements of the heater." (Whitney, col. 5, lines 11-16). Considering the context of these statements and in reviewing the drawings associated with these statements, one of ordinary skill in the art would find such teachings to make sense if they substituted "positive temperature coefficient" for the acronym PTC, but would have a difficult time making any sense of the invention if they were to substitute "pulsed thermocouple" for the acronym PTC as proposed by the Examiner.

As further evidence that the acronym PTC as used by Whitney should be interpreted to mean "positive temperature coefficient," Appellants submit herewith a listing of common meanings associated with the acronym "PTC" as set forth by the internet website Acronym Finder (www.acronymfinder.com visited on June 18, 2004), which lists 48 different meanings for the acronym PTC. Of these 48 common meanings, "positive temperature coefficient" is listed, but "pulsed thermocouple" is not.[1] Thus, Whitney is using an acronym in accordance with a conventional meaning while, contrary to the Examiner's assertion, DeZubay is not.

[1] The listing is set forth in the Evidence Appendix, "Appendix B." Appellants submitted this evidence to the Examiner in a Response to Final Office Action mailed on June 24, 2004.

In sum, Whitney clearly does not use the acronym "PTC" as shorthand for a pulsed thermocouple as taught by DeZubay, nor would one of ordinary skill in the art interpret the disclosure of Whitney in such a way.

Given the foregoing, Appellants respectfully disagree with the Examiner's conclusion that Whitney's "PTC component 14 is a temperature sensing (signal generating) device, *i.e.*, thermocouple," (Final Action, page 9). Whitney specifically describes a "temperature *responsive* component that has a positive temperature coefficient of resistance 14," (Whitney, col. 4, lines 55-56, emphasis added; Fig. 1d; *see also* Col. 3, lines 46-48) and further refers to element 14 as a "PTC component" (Whitney, col. 4, line 68) in the context of a self-limiting heater. However, as discussed hereinabove, Whitney does *not* use "PTC" as an acronym for a pulsed thermocouple, which might act as temperature sensing (signal generating) device. Nor does Whitney contain any description or provision for any other temperature sensing device capable of generating any such signal. Accordingly, Whitney fails to teach or suggest a temperature sensing device configured to generate a signal representative of a temperature sensed thereby.

Appellants also respectfully submit that the combination of Sajoto and Whitney fails to teach or suggest a temperature sensing device, as defined in claim 1, that is *disposed between the layer of insulation and the longitudinal body portion of the feedthrough device.*

The Examiner appears to conflate Whitney's use of the term insulation in the electrical sense with the Appellants' use of insulation in the thermal sense. Indeed, Whitney's electrical heater would have little utility if the insulation referred to by Whitney was designed to *thermally* isolate the heating element from that which is meant to be heated.

In rejecting claim 1, the Examiner cites Whitney as disclosing:

> vii. Electrical resistance leads / resistor elements (40; Figure 4, column 5, lines 19-35) having at least a portion thereof (see Figure 4) disposed within a stainless steel *thermally conductive* sheathing (46; Figure 4, column 5, lines 19-35)...
>
> ix. A layer of *thermal* insulation (42/44/42) column 5, lines 30-35 disposed between at least a portion of the thermally conductive sheathing (46; Figure 4; column 5 lines 19-35) heated section (40) [sic] of the heating device. (Final Action, page 6, emphasis added)

The Examiner's characterization of the Whitney device having a *thermally conductive* sheathing and a layer of *thermal insulation* disposed therein is inconsistent with the purpose and operation of Whitney's heater. In other words, considering FIG. 4 of Whitney, if the insulation (42/44/42) disclosed by Whitney were construed as *thermal* insulation, there would be no point in providing a thermally conductive sheathing (46) since the insulation (42/44/42) would prevent or substantially inhibit any thermal energy from ever reaching the sheathing from the internal heater components. In short, if the insulation (42/44/42) were actually *thermal* insulation, such would defeat the purpose of the Whitney device being a "heater" since it would effectively prevent the transfer of heat from the inner components thereof.

Similarly, if one were to relying on the Examiner's interpretation of Whitney (specifically regarding the insulation component thereof), the proposed combination of Whitney's heater with Sajoto's feedthrough device would result in thermal isolation of Whitney's heating element from

Sajoto's feedthrough device and thereby render Sajoto's device inadequate for its intended purpose.

Given that Whitney does not teach the use of thermal insulation to isolate the heating element from the longitudinal portion of the chamber body, Appellants reassert that Sajoto teaches a thermocouple disposed external to the radiation shield (Sajoto, FIGS. 2 – 3a), whereas claim 1 of the presently claimed invention requires a temperature sensing device *disposed between the layer of insulation and the longitudinal body portion of the feedthrough device.*

Appellants further submit that the combination of Sajoto and Whitney fails to teach or suggest a layer of thermal insulation having at least a portion which is contiguous with at least one of a surface of the chamber body and a surface of the longitudinal body portion.

While the Examiner states that the proposed combination of Sajoto and Whitney would necessarily result in such subject matter being present, Appellants respectfully disagree. In addition to the foregoing arguments with respect to the Examiner's erroneous interpretation of Whitney's insulation being *thermal* insulation, Appellants submit that the Examiner has also improperly interpreted the limitation of claim 1 that the layer of thermal insulation includes at least a portion *which is contiguous with at least one of a surface of the chamber body and a surface of the longitudinal body portion.* The Examiner has interpreted that this "requirement is equivalent to a claim requiring a relative length between Whitney's sheathing (46; Figure 4) length to Whitney's layer of thermal insulation (42,44; Figure 4) length). (Final Action, page 7).

At www.m-w.com/cgi-bin/dictionary?book=Dictionary&va=contiguous,[2]

"contiguous" is defined as follows (emphasis in original):

1 : being in actual contact : touching along a boundary or at a point

2 *of angles* : **ADJACENT 2**

3 : next or near in time or sequence

4 : touching or connected throughout in an unbroken sequence <*contiguous* row houses>

Considering the first and fourth definitions, it is clear that physical contact is contemplated by the term "contiguous" as used in claim 1 of the presently claimed invention. The second definition is clearly not applicable since claim 1 of the presently claimed invention is not comparing or describing relative angles of any structures or components. The third definition is clearly not applicable since claim 1 of the presently claimed invention is not concerned with events during a sequence in time. Moreover, none of the four definitions may be reconciled with the Examiner's interpretation of contiguous to mean that the length of two components be "relative" to one another. (See, Final Action, page 7, paragraph 4).

Considering the common definition of contiguous, and looking at the context of the word as used in claim 1 of the presently claimed invention, Appellants submit that the combination of Sajoto and Whitney fails to teach or suggest a layer of thermal insulation that includes at least a portion *which is contiguous with at least one of a surface of the chamber body and a surface of the longitudinal body portion.*

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[2] Applicants previously submitted the common meaning of "contiguous" in an Amendment mailed June 24, 2004, to which the Examiner requested that an "unabridged definition" be submitted in future communications. Appellants, therefore, submit a copy of this web page, attached hereto in Appendix B, showing the definition of "contiguous."

In light of the foregoing facts, Appellants respectfully submit that claim 1 is allowable over Sajoto and Whitney, either considered separately or in combination.

If an independent claim is nonobvious, then any claim depending from the independent claim is also nonobvious. M.P.E.P. §2143.03 (citing In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988)). Thus, Appellants submit that claims 2 through 5, 7 and 11 through 13 are allowable at least by virtue of being dependent from an allowable base claim.

Appellants respectfully request that the rejections of claims 1 through 5, 7 and 11 through 13 under 35 U.S.C. § 103(a) be reversed.

A.2 PATENTABILITY OF CLAIM 8

In the Final Action mailed April 30, 2004, the Examiner rejected claim 8 U.S.C. § 103(a) as being unpatentable over Sajoto in view of Whitney as demonstrated by DeZubay. More specifically, the Examiner relies on Sajoto and Whitney as applied to claim 1 and as discussed hereinabove, and further relies on the PTC element (14) of Whitney as being a temperature sensing device.

As discussed hereinabove, the PTC component (14) of Whitney is a positive temperature coefficient component included as part of a self-limiting heater rather than a temperature sensing device configured to generate a signal representative of a temperature sensed thereby as defined by the presently claimed invention. As such, Appellants submit that, contrary to the Examiner's assertion, Sajoto and Whitney fail to teach or suggest a heater device having a temperature sensing device disposed within the thermally conductive sheath of the heating device.

Appellants respectfully request that the rejection of claim 8 under 35 U.S.C. § 103(a) be reversed.

A.3 PATENTABILITY OF CLAIMS 9

In the Final Action mailed April 30, 2004, the Examiner rejected claim 8 U.S.C. § 103(a) as being unpatentable over Sajoto in view of Whitney as demonstrated by DeZubay. More specifically, the Examiner relies on Sajoto and Whitney as applied to claim 1 and as discussed hereinabove, and further relies on the PTC element (14) of Whitney as being a thermocouple.

Appellants submit that Sajoto and Whitney fail to teach or suggest that the temperature sensing device (configured and located as set forth in claim 1, from which claim 9 depends) include a thermocouple. More specifically, Sajoto and Whitney fail to teach a thermocouple *disposed between the layer of insulation and the longitudinal body portion of the feedthrough device* and configured to generate a signal representative of a temperature sensed thereby.

While the Examiner has cited DeZubay as demonstrating that PTCs are thermocouples, as set forth in detail hereinabove, the reference to a "PTC" by DeZubay is clearly inconsistent with the use of the same acronym by Whitney. Appellants note that a basic thermocouple conventionally includes a pair of dissimilar metal components forming a junction therebetween to produce a temperature induced voltage.[3] Appellants find no teaching or suggestion in Whitney regarding such a structure. Nor do Appellants find any teaching or suggestion in Sajoto that a thermocouple be located and configured as set forth in the presently claimed invention.

[3] Applicants have submitted this definition of a thermocouple in previous arguments and the Examiner has similarly provided such a definition in the Final Action at page 10.

Appellants respectfully request that the rejection of claim 9 under 35 U.S.C. § 103(a) be reversed.

A.4 PATENTABILITY OF CLAIM 10

In the Final Action mailed April 30, 2004, the Examiner rejected claim 8 U.S.C. § 103(a) as being unpatentable over Sajoto in view of Whitney as demonstrated by DeZubay. More specifically, the Examiner relies on Sajoto and Whitney as applied to claim 1 and as discussed hereinabove, and further relies on the PTC element (14) of Whitney as being a thermocouple.

Appellants submit that Sajoto and Whitney fail to teach or suggest that a thermocouple (as set forth in intervening claim 9) that is positioned within the thermally conductive sheathing of the heating device.

While the Examiner has cited DeZubay as demonstrating that PTCs are thermocouples, as set forth in detail hereinabove, the reference to a "PTC" by DeZubay is clearly inconsistent with the use of the same acronym by Whitney. Appellants note that a basic thermocouple conventionally includes a pair of dissimilar metal components forming a junction therebetween to produce a temperature induced voltage.[4] Appellants find no teaching or suggestion in Whitney regarding such a structure. Nor do Appellants find any teaching or suggestion in Sajoto that a thermocouple be positioned within the conductive sheathing of the heating device.

Appellants respectfully request that the rejection of claim 10 under 35 U.S.C. § 103(a) be reversed.

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[4] Applicants have submitted this definition of a thermocouple in previous arguments and the Examiner has similarly provided such a definition in the Final Action at page 10.

8) CLAIMS APPENDIX

A copy of claims 1 through 5 and 7 through 13 is appended hereto as "Appendix A."

9) EVIDENCE APPENDIX

The following items are set forth in Appendix B in support of the foregoing arguments:

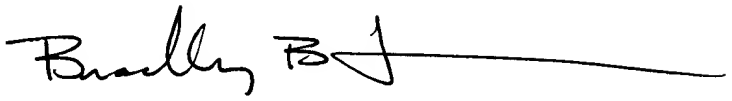
a print out from www.acronymfinder.com showing a listing of common meanings for the acronym "PTC"; and

a print out from www.m-w.com/cgi-bin/dictionary?book=Dictionary&va=contiguous showing the common definitions of "contiguous" are each appended hereto in "Appendix B."

CONCLUSION

Appellants respectfully submit that claims 1 through 5 and 7 through 13 are allowable over the prior art relied upon by the Examiner and respectfully request that the rejections under 35 U.S.C. § 103(a) be reversed.

Respectfully submitted,



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APPENDIX A

Claims 1 through 5 and 7 through 13 (3 pages)

U.S. Patent Application No. 10/932,860

Filed August 17, 2001

1. A deposition chamber comprising:

a chamber body having a cavity formed therein;

a chamber lid configured to enclose the cavity;

a vapor delivery head positioned within the cavity;

a feedthrough device positioned in the chamber body, the feedthrough device having a longitudinal body portion and being configured to receive vapor from a vapor source and transfer the vapor therethrough along a pathway toward the vapor delivery head;

a heating device including at least one resistor element having at least a portion thereof disposed within a thermally conductive sheathing, the heating device including a nonheated section and a heated section, wherein at least a portion of the heated section is configured to conduct heat to the longitudinal body portion of the feedthrough device;

a layer of thermal insulation disposed between at least a portion of the thermally conductive sheathing of the heating device and the chamber body and substantially circumscribing the longitudinal body portion and the at least a portion of the thermally conductive sheathing, the layer of thermal insulation including at least a portion which is contiguous with at least one of a surface of the chamber body and a surface of the longitudinal body portion; and

a temperature sensing device disposed between the layer of insulation and the longitudinal body portion of the feedthrough device and configured to generate a signal representative of a temperature sensed thereby.

2. The deposition chamber of claim 1, wherein the feedthrough device includes a lumen defined therethrough for transferring the vapor therethrough.

3. The deposition chamber of claim 2, wherein the feedthrough device includes a continual helical groove formed on a surface of the longitudinal body portion.

4. The deposition chamber of claim 3, wherein the at least a portion of the heated section is disposed within the continual helical groove of the feedthrough device.

5. The deposition chamber of claim 4, wherein the continual helical groove is configured to complementarily receive the at least a portion of the heated section.

7. The deposition chamber of claim 1, wherein the thermally conductive sheathing is formed of stainless steel.

8. The deposition chamber of claim 1, wherein the temperature sensing device is disposed within the thermally conductive sheath.

9. The deposition chamber of claim 1, wherein the temperature sensing device includes a thermocouple.

10. The deposition chamber of claim 9, wherein the thermocouple is positioned within the thermally conductive sheathing.

11. The deposition chamber of claim 3, wherein at least a portion of the thermally conductive sheathing is configured to maintain the heating device in a substantially helical pattern complementary with the continual helical groove.

12. The deposition chamber of claim 1, wherein at least a portion of the thermally conductive sheathing is adhered to the feedthrough device.

13. The deposition chamber of claim 1, wherein at least a portion of the thermally conductive sheathing is welded to the feedthrough device.

APPENDIX B

Printout of www.acronymfinder.com Regarding Acronym "PTC" (6 pages)

Printout of www.m-w.com/cgi-bin/dictionary?book=Dictionary&va=contiguous Regarding Definition of "Contiguous" (1 page)

U.S. Patent Application No. 10/932,860

Filed August 17, 2001

Acronyms & Abbreviations (most common first)

AF Acronym Finder
home/new search

Option
exact acronym

New acronym search
PTC
Find

What does **PTC** stand for?

Your search returned 48 meanings

Search again sorting by... Most Common | Information Technology | Military & Government | Science & Medicine | Organizations, Schools, etc. | Business & Finance | Slang & Chat | Alternative Searches

Acronym	Definition	@Amazon.com
PTC	Chief Photographic Intelligenceman (Naval Rating)	GO!
PTC	Pacific Telecommunications Council	GO!
PTC	Paint Technology Center (US Army Corps of Engineers)	GO!
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PTC	Parametric Technology Corp.	GO!
PTC	Parent Teacher Club	GO!
PTC	Parent Teacher Conference	GO!
PTC	Parents Television Council	GO!
PTC	Partenariat Technologique Canada (Technology Partnerships Canada)	GO!
PTC	Passively Thermally Compensated	GO!
PTC	Payload Training Capability	GO!
PTC	Peachtree City	GO!
PTC	Pennsylvania Turnpike Commission	GO!
PTC	Pentagon Telecommunications Center	GO!
PTC	Peoria Terminal Company	GO!

PTC	Percutaneous Transhepatic Cholangiography (cancer-diagnostic procedure)	GO!
PTC	Permission to Camp (parental consent form for insurance purposes)	GO!
PTC	Personal Torrent Collector	GO!

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PTC	Plasma Thromboplastin Component (Blood Coagulation Factor IX)	GO!
PTC	Platform Technology Committee	GO!
PTC	Polska Telefonia Cyfrowa (Polish telecommunications company)	GO!
PTC	Polynomial Transform Computation	GO!
PTC	Portable Tele-Transaction Computer (in reference to hand held barcode scanners)	GO!
PTC	Positive Temperature Coefficient	GO!
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PTC	Power Terminal Cabinet	GO!
PTC	Power Transfer Conduit (Star Trek)	GO!

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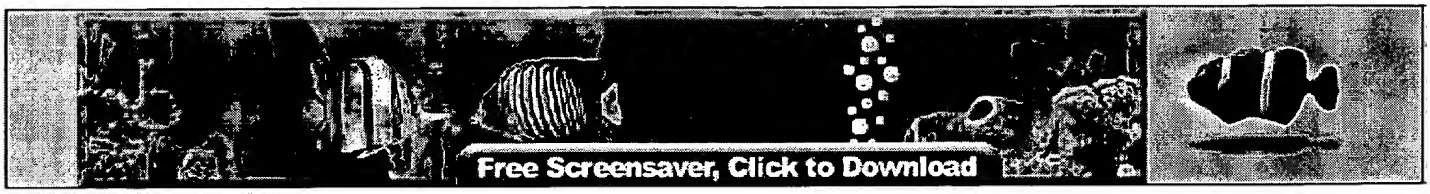

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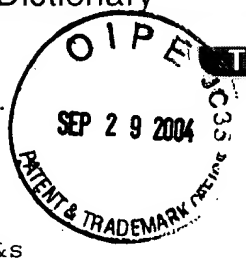

One entry found for **contiguous**.

Main Entry: **con·tig·u·ous**
Pronunciation: k&n-'ti-gy&-w&s
Function: *adjective*
Etymology: Latin *contiguus,* from *contingere* to have contact with -- more at CONTINGENT
1 : being in actual contact **:** touching along a boundary or at a point
2 *of angles* **:** ADJACENT 2
3 : next or near in time or sequence
4 : touching or connected throughout in an unbroken sequence <*contiguous* row houses>
synonym see ADJACENT
- **con·tig·u·ous·ly** *adverb*
- **con·tig·u·ous·ness** *noun*

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